Project Execution - PM Elements

Change and Issue Management

Initial Release	**1.0**
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What Happens During Project Performance?

Discussed in this section are two processes that will significantly increase the chances of project success and will help with the overall management of the project. These are:

- Change Management
- Issue Management

During project planning, the management approach for both of these areas is identified. At the time of project plan baseline, responsibility for these areas should be assigned. At the start of project performance, both of these processes should be in place and working. Change and Issue Management has been organized into one section. In many regards, the processes are similar and the purposes are the same -- to help achieve balance in the project. At times, a requester may not be sure if an item is a change or an issue. In fact, there are times when an item will start in the issue process and end up in the change process.

The difference between an issue and a change rests in how a project is impacted. Change, as indicated in its name, affects the view of the project and will impact the scope, project definition, and/or specification.

Issues do not have an impact on the defined project's product -- scope, definition, or specification. Issues are identified in the form of questions, problems, or suggestions raised by the project team, management, or contractor. They can often affect the status of tasks or deliverables, which would result in changes to cost and schedule.

You Can't Manage What You Don't Control

As discussed in the various sections of the Project Management Methodology framework, change in a project is one of the major reasons projects fail. However, this is the area in which project managers/teams continually lose control. The reason is typically a lack of discipline within the project team and with the customer to resist "changing" the stated product of the project. A solution is to establish a critical baseline of the project's products and to document it. These documents are the project plan, the product specification, and other development documents that are placed under Configuration Management. Whenever a question is raised, the baseline documents are always the reference point. Anything that is not covered in the baseline or that alters the baseline is a change.

If the individual is not sure if it is a change, then it should be treated as an issue.

Part of controlling a project during the performance life cycle phases is to have established change and management processes that are unique to the project.

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These processes are established as part of the project plan and kept current until the project close-out.

The key elements to these processes are:

- A central repository for change information and one for issue information.
- Summary of information for the processes on either a change request form or issue form (as shown and discussed later in this section).

  Configuration Management as discussed in the *Project Management Planning* section.
- Assignment of a Change Manager and Change Control Board.

  The manager should be either the project manager or a member of the status tracking/review team (this assignment should have been made at project baseline, but definitely by the early days of performance). If the project manger is not the Change Manager, then he/she is at least a member of the Change Control Board (CCB).

  The Change Control Board should consist of the Change Manager, key technical and management staff from the project team, representation from executive management, stakeholders, and user communities. The size of the Board should be kept to a working group of not more than 12 individuals, preferably under 10.
- Assignment of an Issue Manager. Typically this is someone in the administrative project area who will work with the Project Manager and can prepare the material for the project status meetings. In a small project, it may well be the project manager.
- Inclusion of change and issue summary information as part of the standard project status meetings.
- Consistent and ongoing evaluation of change and issue items and development of appropriate resolution/implementation strategies.

What is Change Management?

Change Management is a process that provides a mechanism to identify and handle change. Change that will occur can affect the scope, cost, quality, and nature of the contract deliverables, as well as the functioning of the project team.

In order to maintain the balance between requirements and the cost/schedule, the project team should use a Change Management Process. This process allows for change during the project's life cycle but always puts the change in the context of the latest documented agreement (project plan) between the team and management and, in the case of the contractors, as contractually agreed to.

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The Change Management Process consists of a series of steps that allows changes to be identified, evaluated, priced, and tracked through closure.

A sample of a Change Control Process is shown on the following page. This process may be too complex for some projects and not complex enough for others. The goal is for projects to implement and use a process that fits the project.

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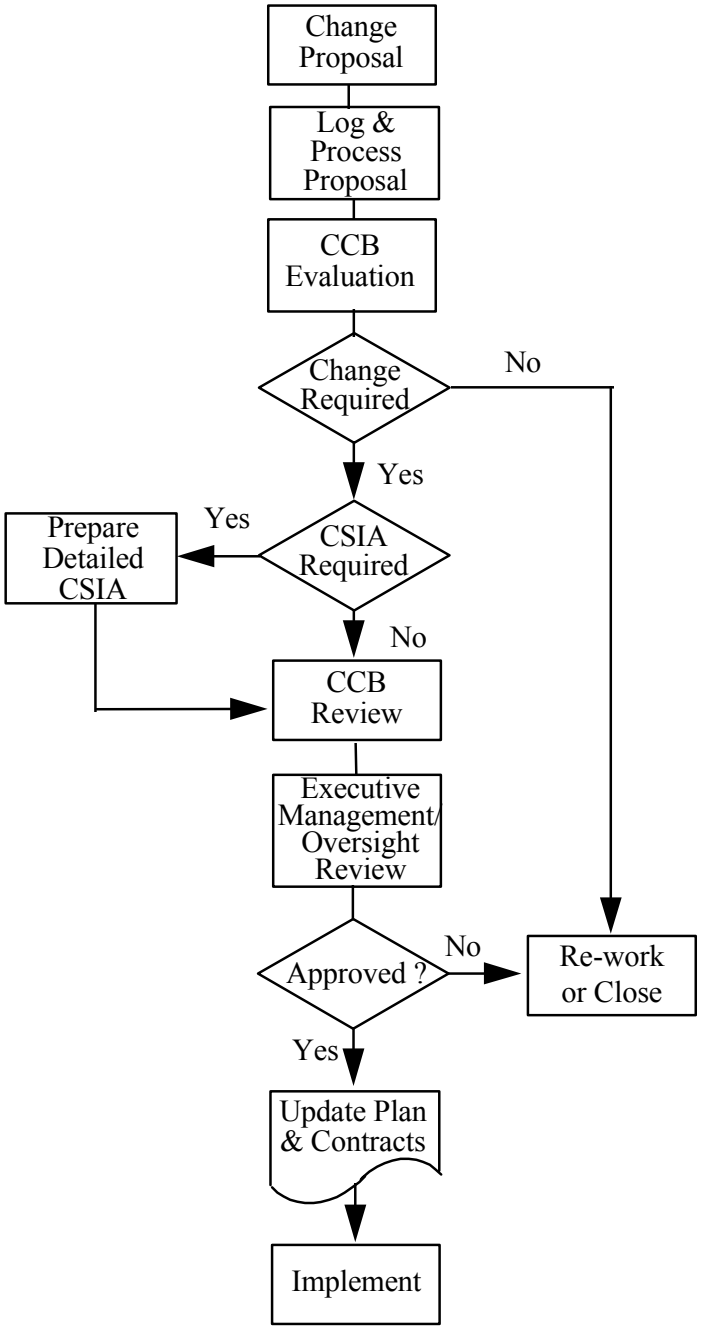
Change Control Process



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The Change Management Process

To have the process work requires that an individual submit information on the change to be considered. Anyone within the project team, user community, stakeholders, or contractors can submit a change request. This is to be done in writing either on paper or in automated format.

The Change Control form shown in this framework can be used and is included in Appendix A: *Templates & Sample Forms.* This form is also included as part of this document. A project team can also design its own form and add or change the information as required.

The form shown here is additive. In other words, additional information is completed on the form as it moves through the process. This process is also iterative in that it will keep occurring until the project is complete.

Phase 1 - Requester Information

The form includes the following:

Identification Block - Is completed by the requester and identifies the change request title, which will be used in subsequent communication, the date submitted, and the person and organization submitting the request.

Proposed Change Description and References - Describes the change being proposed and clearly identifies whether the change is system, organizational, or procedural in nature. Any reference material that will assist the reviewers should be identified and attached.

Justification - A discussion of why the change is being proposed, including a cost benefit analysis. In other words, how will the customer and state organization benefit from the change?

Impact Statement - If the change is not implemented, how will it adversely affect the customer and state organization?

Alternatives - List at least one alternative (more if possible) to the change you are proposing, and indicate why the proposed change is better. Briefly indicate why the alternative is not the better choice.

Attach any supporting documentation that helps to clarify the proposed change.

When complete, submit to the Project Change Manager. At that time, a control number will be assigned so that the change request can be tracked to completion.

Phase 2 - Initial Review of the Change Request

All change requests will be reviewed on a regular basis by the project Change Control Board. This Board will typically meet on a weekly, bi-weekly, or monthly basis. The actual schedule will depend on where the project team is in terms of the project life cycle. During phases that typically have a high volume of change, the Board might meet weekly. During other phases, the Board might meet once a month. The Change Manager will drive the schedule based on the number and complexity of change requests.

As part of Phase 2 of the Change Control Process, the Board will complete the second part of the form which includes:

Initial review results and disposition - The Change Control Board will review the initial request and determine whether to proceed, reject, or defer the request. In moving forward, the request will be assigned to an analyst for an initial impact analysis.

Phase 3: Initial Impact Analysis

The assigned analyst will make an initial assessment of the cost, schedule, and resources needed to implement the proposed change. If the requested change is complex, and an initial assessment cannot be made within two days, a Cost/Schedule Impact Analysis (CSIA) should be requested.

The analyst will indicate this and will estimate the cost, schedule, and resources needed to perform the CSIA.

The Change Control Board will once again review the requested change and either accept, reject, or defer the change.

Phase 4: Final Review Results and Change Priority

When the analysis has been completed by the assigned analyst, and the cost, schedule, and resource needs are identified, the management team will submit the change to executive management and/or project oversight agencies for review.

With executive management and/or project oversight state organization approval, the appropriate processes will be followed to update contracts and the baseline documents.

Form: PM 09
Change Management Form

Control Number: _____

Change Proposal Title: _____ **Date Created:** _____

Originator: _____ **Organization:** _____

Proposed Change Description and References:

Justification:

Impact of Not Implementing Proposed Change:

Alternatives:

Form: PM 09
Change Management Form

Initial Review Results

Review Date: _____Assigned to:_____ Organization:_____

___Approve for Implementation ___Reject ___Defer Until:_____

Reason:

Initial Impact Analysis

Baselines Affected: _____

Configuration Items Affected: _____
_____
_____
_____
_____

Cost / Schedule Impact Analysis Required? No___ Yes___

Impact on Cost: _____
Impact on Schedule: _____
Impact on Resources: _____

Final Review Results:

Review Date:_____

Classification: ____HIGH ____MEDIUM ____LOW

Reviewing Body

Name: _____Position:_____Signature:_____
Name: _____Position:_____Signature:_____
Name: _____Position:_____Signature:_____
Name: _____Position:_____Signature:_____

Form PM 09
Change Management Form
Cost/Schedule Impact Analysis

Change / Issue Proposal Title_____

Change Proposal Date: _____ **Issue Date:** _____
Change Proposal No. _____ **Issue No.** _____

Originator:_____ **Organization:**_____

Detailed Impact Analysis Requested by: _____

Assigned to:_____**Organization:**_____

Specific Requirements Definition:

Additional Resource Requirements	**Work Days**	**Cost**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Impact of Not Implementing the Change:

Alternatives to the Proposed Change:

Impact Analysis Completion Date:_____

Signature of Responsible Person:_____

Final Recommendation: :_____

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What is Issue Management?

Issue management is a process that provides a mechanism to process and review issues. Issues that develop during the project need a way to be raised by the project team and for the team to know that they will be addressed.

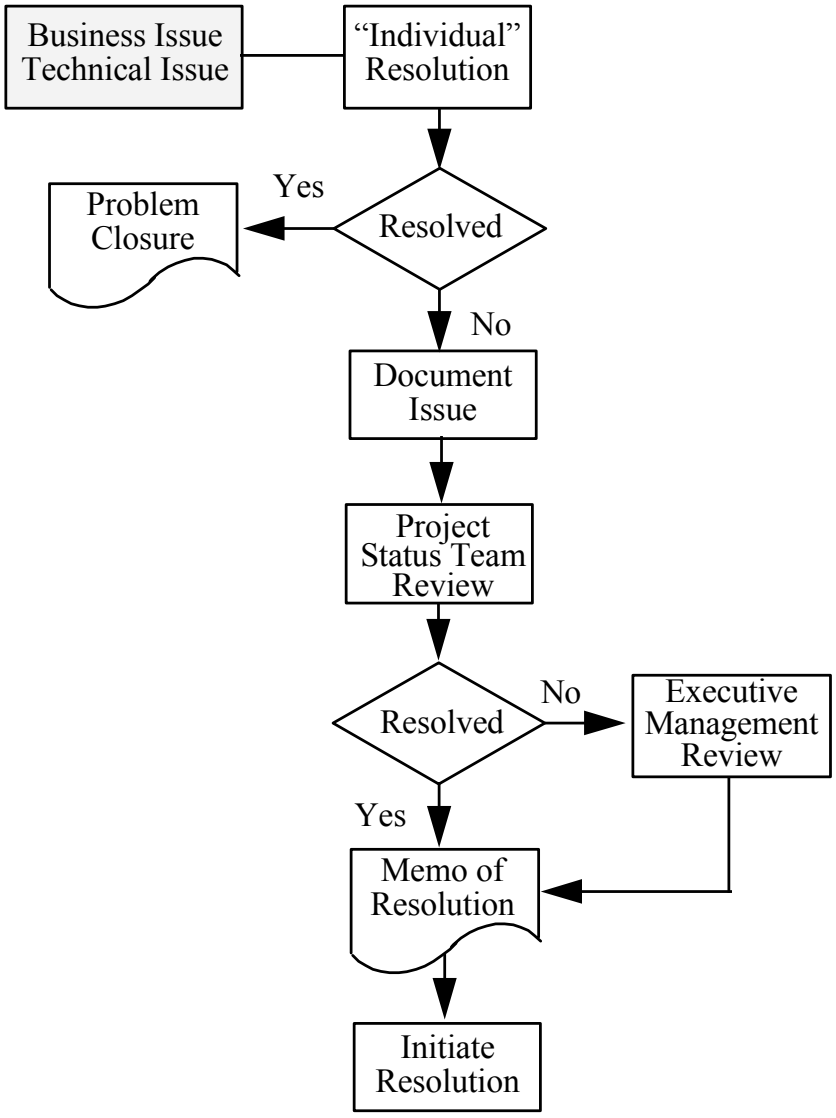
When issues arise, they need to be resolved in a consistent and disciplined manner in order to maintain the quality of the deliverable, as well as to control schedules and cost. The Issue Resolution Process ensures that the differences, questions, and unplanned requests are defined properly, escalated for management attention, and resolved quickly and efficiently.

The Issue Management Process is really one of issue resolution and should be designed to handle technical problems or issues, as well as to address process, organizational, and operational issues. The process considers:

- Appropriate procedures for issue escalation
- Level of management that needs to be involved for escalation
- Required time for resolution
- Who will be responsible for resolving the issue

Defined below is a possible process that can be used for submitting, reviewing, and gaining closure on an issue within a project. This is a sample of an Issue Change Control Process that may be too complex for some projects and not complex enough for others. The goal is for projects to implement and use a process that fits the project.

Issue Control Process



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The Issue Management Process

The purpose of the Issue Resolution Process is to provide a mechanism for organizing, maintaining, and tracking the resolution of issues that cannot be resolved at the "individual" level. The approach consists of issue control mechanisms and a well-defined process that enables the project team to identify, address, and prioritize problems and issues.

The Issue Resolution Form gives everyone involved with, or affected by, the project a way to report issues or problems. It provides a template for documenting the problem, assessing the impact of the problem, making recommendations, determining the cost (people and assets), and time required to resolve the problem.

The Issue Resolution Form shown in this section can be used and is included in Appendix B: *Templates & Sample Forms*. A project team can also design its own form.

This process is also iterative in that it will keep occurring until the project is complete.

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Phase 1 - Requester Information

Issue Resolution Procedure - To have the process work requires individuals to submit information on the issues to be considered. Anyone within the project team, user community, stakeholders, or contractors can submit an issue.

This must be done in writing, either on paper or in automated format.

The Issue Resolution Form is a two-sided form that is divided into major categories. Side one is completed by the person reporting the problem. Its major categories include:

Identification block - Identifies the change request title, which will be used in subsequent communication, the date submitted, and the person and organization submitting the request.

Issue classification and description -

- Description
- Recommendations
- Impact Statement
- Date Required and Proposed assignee

Each category should be self explanatory, but individuals should be directed to the issue manager for assistance as needed. Attach any supporting documentation that helps clarify the problem, such as report outputs, user screens being used, steps performed leading to the problem, error messages, etc. When complete, submit to the Issue Manager. At that time, a control number will be assigned so that the issue can be tracked to completion.

Phase 2 - Initial Review of the Change Request

All change requests will be reviewed on a regular basis by the project status group at the project status meetings. This group will typically meet on a weekly or bi-weekly basis.

As part of Phase 2 of the Issue Resolution Process, the group will complete the second part of the form which includes:

- Reviewer information and initial comments
- Estimate of additional effort (CSIA prepared if further evaluation required)
- Recommendation and, if approved, responsible person and planned completion date
- Project Manager signature

Phase 3: Tracking

All action items will be tracked until they are resolved. The Issue Manager will report on all open issues at the weekly status meetings. If the list of issues is too long, only the new issues will be discussed. At times, it may be advisable to pre-distribute issue information so that the Project Status Group can review the material before the meeting.

Phase 4: Final Review Results and Change Priority

When the issue or problem has been resolved and verified, the actual date the problem was resolved and an approval signature completes the issue resolution process, and the issue is closed.

Some issues may need executive management and/or project oversight state organization approval. The appropriate processes will be followed to update contracts and baseline documents.

Form: PM 10
Issue Resolution Form

Control Number_____

Project Name:_____ **Date:**_____

Requester:_____**Organization:**_____

Issue Type (check one)

___Request for Information ___System Problem ___Procedural Problem ___Other

(Specify)_____
_____

Description:

Recommendation

Impact (if not resolved)

Date Resolution Needed: _____

Proposed Assignee:_____
Attachments (if any):

Form PM 10
Issue Resolution Form

Reviewer:_____ **Review Completion Date:**_____

Reviewer Comments:

Estimate of Additional Effort:

Cost / Schedule Impact Analysis Required? Yes___ No___

Resource Requirements	_____	**Work Days or Cost**	_____
	_____		_____
	_____		_____
	_____		_____
	_____		_____

Recommendation (check one)

___Accept ___Defer ___Need Additional Information ___Reject

Assigned to:_____ **Organization:**_____

Planned Completion Date:_____

Comments:

Project Manager Signature:_____ **Date:** _____
Actual Completion Date:_____ **Approval Signature:**_____